

What is claimed is:

1. A method for scheduling a project, comprising the steps of:

i) determining resources required to perform the project and an amount of time to be allocated to each resource;

5 ii) calculating a first flow time value for completing the project when there are no inter-project constraints on the resources;

iii) defining a flow expansion coefficient value for the project;

iv) designating a proposed start time for the project;

v) calculating a second flow time value for completing the project from said proposed start time, in accordance with existing inter-project constraints on the resources;

10 vi) determining whether said second flow time is greater than the product of said first flow time and said coefficient value;

vii) determining a new proposed start time if said second flow time is greater than said product;

15 viii) iteratively repeating steps v-vii until said second flow time is less than or equal to said product; and

ix) setting the start time for the project in accordance with the proposed start time designated during the final iteration of steps v-vii.

20 2. The method of claim 1, wherein said new proposed start time is determined in step vii by adjusting the prior start time by an amount equal to the difference between said second flow time and said product.

25 3. The method of claim 2 further including the step of defining a minimum amount of time for incrementing the proposed start time, and adjusting the prior start time by the larger of said minimum and said difference.

4. The method of claim 2 wherein step vii includes the steps of setting the new proposed start time to a preliminary value equal to the start time at which the earliest task of said project would be scheduled in accordance with the prior start time and existing inter-project constraints on the resources, and then adjusting said preliminary value in accordance with said difference.

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5. The method of claim 2 wherein said new proposed start time is determined by adding said difference to the prior proposed start time, so that the new proposed start time is later than the prior proposed start time.

6. The method of claim 2 wherein said new proposed start time is determined by subtracting said difference from the prior proposed start time, so that the new proposed start time is earlier than the prior proposed start time.

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7. The method of claim 6, wherein a project start time is obtained by reversing the process flow and determining a latest project finish time.

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8. The method of claim 1, wherein said project is a set of a manufacturing activities.

9. A system for determining the start time of a project in a multiple project environment, comprising:

means for storing an amount of time to be allocated to each resource required to perform the project;

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means for receiving a user-defined flow expansion coefficient value;

means for calculating whether the product of said flow expansion coefficient value and a first flow time for completing the project in the absence of

inter-project constraints on the resources is greater than a second flow time for completing the project when existing inter-project constraints on the resources are considered, for a given start time; and

means for designating a different start time if said product is not greater than or equal to said second flow time.

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10. The system of claim 9 wherein said designating means iteratively designates different start times on an incremental basis until said product is greater than or equal to said second flow time.

11. The system of claim 10 wherein said incremental basis is equal to the difference between said second flow time and said product.

12. The system of claim 11 wherein said incremental basis is equal to the greater of said difference and a predetermined minimum value.

13. The system of claim 10 wherein said different start times are successively later in time.

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14. The system of claim 10 wherein said different start times are successively earlier in time.

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